

1 <110> APPLICANT: Fu, C. Alan



RAW SEQUENCE LISTING DATE: 11/27/2002 PATENT APPLICATION: US/09/645,456A TIME: 14:44:29

Input Set: N:\Crf3\RULE60\09645456A.RAW
Output Set: N:\CRF4\11272002\1645456A.raw

2 <120> TITLE OF INVENTION: NOVEL GERMINAL CENTER KINASE CELL CYCLE PROTEINS, COMPOSITIONS AND METHODS OF USE 4 <130> FILE REFERENCE: A-68344/RMS/DHR 5 <140> CURRENT APPLICATION NUMBER: 09/645,456A 6 <141> CURRENT FILING DATE: 2000-08-24 9 <150> PRIOR APPLICATION NUMBER: US/09/425,324 **ENTERED** 10 <151> PRIOR FILING DATE: 1999-10-21 12 <160> NUMBER OF SEQ ID NOS: 36 13 <170> SOFTWARE: PatentIn version 3.1 15 <210> SEQ ID NO: 1 16 <211> LENGTH: 4083 17 <212> TYPE: DNA 18 <213> ORGANISM: Artificial Sequence 19 <220> FEATURE: 20 <223> OTHER INFORMATION: synthetic 21 <400> SEQUENCE: 1 atggcgagcg actccccggc tcgaagcctg gatgaaatag atctctcggc tctgagggac 22 60 23 cctgcaggga tctttgaatt ggtggaactt gttggaaatg gaacatacgg gcaagtttat 120 24 180 aagggtcgtc atgtcaaaac gggccagctt gcagccatca aggttatgga tgtcacaggg 25 240 gatgaagagg aagaaatcaa acaagaaatt aacatgttga agaaatattc tcatcaccgg 300 26 aatattgcta catactatgg tgcttttatc aaaaagaacc caccaggcat ggatgaccaa 27 ctttggttgg tgatggagtt ttgtggtgct ggctctgtca ccgacctgat caagaacaca 360 28 aaaggtaaca cgttgaaaga ggagtggatt gcatacatct gcagggaaat cttacggggg 420 29 ctgagtcacc tgcaccagca taaagtgatt catcgagata ttaaagggca aaatgtcttg 480 30 540 ctgactgaaa atgcagaagt taaactagtg gactttggag tcagtgctca gcttgatcga 31 acagtoggea ggaggaatac tttcattoga actecetact ggatoggeace agaagttatt 600 32 gcctgtgatg aaaacccaga tgccacatat gatttcaaga gtgacttgtg gtctttgggt 660 atcaccgcca ttgaaatggc agaaggtgct ccccctctct gtgacatgca ccccatgaga 33 720 34 getetettee teatececeg gaatecageg eeteggetga agtetaagaa gtggteaaaa 780 35 aaattccagt catttattga gagctgcttg gtaaagaatc acagccagcg accagcaaca 840 900 36 gaacaattga tgaagcatcc atttatacga gaccaaccta atgagcgaca ggtccgcatt 37 caactcaagg accatattga tagaacaaag aagaagcgag gagaaaaaga tgagacagag 960 38 tatgagtaca gtggaagtga ggaagaagag gaggagaatg actcaggaga gcccagctcc 1020 1080 39 atcctgaatc tgccagggga gtcgacgctg cggagggact ttctgaggct gcagctggcc 40 aacaaggage gttetgagge cetaeggagg eageagetgg ageageagea gegggagaat 1140 1200 41 gaggagcaca agcggcagct gctggccgag cgtcagaagc gcatcgagga gcagaaagag 1260 42 cagaggcggc ggctggagga gcaacaaagg cgagagaagg agctgcggaa gcagcaggag 1320 43 agggagcage geeggeacta tgaggagcag atgegeeggg aggaggagag gaggegtgeg 1380 gagcatgaac aggaatacat caggcgacag ttagaggagg agcagagaca gttagagatc 44 ttgcagcagc agctactgca tgaacaagct ctacttctgg aatataagcg caaacaattg 1440 45

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1500

1560

46 47 RAW SEQUENCE LISTING DATE: 11/27/2002
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94 <212> TYPE: DNA

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97 <223> OTHER INFORMATION: synthetic

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| 100      | cctgcaggga  | tctttgaatt | ggtggaactt         | gttggaaatg         | gaacatacgg   | gcaagtttat | 120  |
| 101      | aagggtcgtc  | atgtcaaaac | gggccagctt         | gcagccatca         | aggttatgga   | tgtcacaggg | 180  |
| 102      | gatgaagagg  | aagaaatcaa | acaagaaatt         | aacatgttga         | agaaatattc   | tcatcaccgg | 240  |
| 103      | aatattgcta  | catactatgg | tgcttttatc         | aaaaagaacc         | caccaggcat   | ggatgaccaa | 300  |
| 104      | ctttggttgg  | tgatggagtt | ttgtggtgct         | ggctctgtca         | ccgacctgat   | caagaacaca | 360  |
| 105      | aaaggtaaca  | cgttgaaaga | ggagtggatt         | gcatacatct         | gcagggaaat   | cttacggggg | 420  |
| 106      | ctgagtcacc  | tgcaccagca | taaagtgatt         | catcgagata         | ttaaagggca   | aaatgtcttg | 480  |
| 107      | ctgactgaaa  | atgcagaagt | taaactagtg         | gactttggag         | tcagtgctca   | gcttgatcga | 540  |
| 108      | acagtgggca  | ggaggaatac | tttcattgga         | actccctact         | ggatggcacc   | agaagttatt | 600  |
| 109      | gcctgtgatg  | aaaacccaga | tgccacatat         | gatttcaaga         | gtgacttgtg   | gtctttgggt | 660  |
| 110      | atcaccgcca  | ttgaaatggc | agaaggtgct         | cccctctct          | gtgacatgca   | ccccatgaga | 720  |
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| 116      | atcctgaatc  | tgccagggga | gtcgacgctg         | cggagggact         | ttctgaggct   | gcagctggcc | 1080 |
| 117      | aacaaggagc  | gttctgaggc | cctacggagg         | cagcagctgg         | agcagcagca   | gcgggagaat | 1140 |
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| 119      | cagaggcggc  | ggctggagga | gcaacaaagg         | cgagagaagg         | agctgcggaa   | gcagcaggag | 1260 |
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| 137      | cccagtcgac  | cagctagcta | caaaaaagct         | atagatgagg         | atctgacggc   | attagccaaa | 2340 |
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| 141      | ggcagcaacg  | agcagtacaa | tgtgggaatg         | gtggggacgc         | atgggctgga   | gacctctcat | 2580 |
| 142      | gcggacagtt  | tcagcggcag | tatttcaaga         | gaaggaacct         | tgatgattag   | agagacgtct | 2640 |
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| 145      |             | attcccagga |                    |                    |              |            | 2820 |
| 146      | aaagcctcct  | tcaccccctt | tgtggacccc         | agagtatacc         | agacgtctcc   | cactgatgaa | 2880 |
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| 152 |       |             |              |            |            | tttcaggaaa |            | 3240 |
| 153 |       |             |              |            | _          | tacataatga |            | 3300 |
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| 159 |       |             |              |            |            | ttgtcatctt |            | 3660 |
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| 180 |       |             |              |            |            | gcagggaaat |            | 420  |
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| 187 |       | aaattccagt  | catttattga   | gagctgcttg | gtaaagaatc | acagccagcg | accagcaaca | 840  |
| 188 |       | gaacaattga  | tgaagcatcc   | atttatacga | gaccaaccta | atgagcgaca | ggtccgcatt | 900  |
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| 191 |       | _           |              | -          |            | ttctgaggct |            | 1080 |
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| 200 | -          |            |              |            | ccaaggagat | _          | 1620 |
| 201 |            |            |              |            | agtcagtgca | _          | 1680 |
| 202 |            |            |              | _          | cctcccaccg |            | 1740 |
| 203 |            |            |              |            | tccccactcg |            | 1800 |
| 204 |            |            |              |            | caccaaaggt |            | 1860 |
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| 206 | ggacccagac | taggatctca | acccatcaga   | gcaagcaacc | ctgatctccg | gagaactgag | 1980 |
| 207 | cccatcttgg | agagcccctt | gcagaggacc   | agcagtggca | gttcctccag | ctccagcacc | 2040 |
| 208 | cctagctccc | agcccagctc | ccaaggaggc   | tcccagcctg | gatcacaagc | aggatccagt | 2100 |
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| 210 | cctgccaagg | tgaaaccaga | agaatccagg   | gacattaccc | ggcccagtcg | accagctagc | 2220 |
| 211 | tacaaaaaag | ctatagatga | ggatctgacg   | gcattagcca | aagaactaag | agaactccgg | 2280 |
| 212 | attgaagaaa | caaaccgccc | aatgaagaag   | gtgactgatt | actcctcctc | cagtgaggag | 2340 |
| 213 | tcagaaagta | gcgaggaaga | ggaggaagat   | ggagagagcg | agacccatga | tgggacagtg | 2400 |
| 214 | gctgtcagcg | acatacccag | actgatacca   | acaggagctc | caggcagcaa | cgagcagtac | 2460 |
| 215 | aatgtgggaa | tggtggggac | gcatgggctg   | gagacctctc | atgcggacag | tttcagcggc | 2520 |
| 216 | agtatttcaa | gagaaggaac | cttgatgatt   | agagagacgt | ctggagagaa | gaagcgatct | 2580 |
| 217 | ggccacagtg | acagcaatgg | ctttgctggc   | cacatcaacc | tccctgacct | ggtgcagcag | 2640 |
| 218 | agccattctc | cagctggaac | cccgactgag   | ggactggggc | gcgtctcaac | ccattcccag | 2700 |
| 219 | gagatggact | ctgggactga | atatggcatg   | gggagcagca | ccaaagcctc | cttcaccccc | 2760 |
| 220 | tttgtggacc | ccagagtata | ccagacgtct   | cccactgatg | aagatgaaga | ggatgaggaa | 2820 |
| 221 | tcatcagccg | cagctctgtt | tactagcgaa   | cttcttaggc | aagaacaggc | caaactcaat | 2880 |
| 222 | gaagcaagaa | agatttcggt | ggtaaatgta   | aacccaacca | acattcggcc | tcatagcgac | 2940 |
| 223 | acaccagaaa | tcagaaaata | caagaaacga   | ttcaactcag | aaatactttg | tgcagctctg | 3000 |
| 224 | tggggtgtaa | accttctggt | ggggactgaa   | aatggcctga | tgcttttgga | ccgaagtggg | 3060 |
| 225 |            |            |              |            | agcagatgga |            | 3120 |
| 226 | ggactgaatg | tccttgtgac | aatttcagga   | aagaagaata | agctacgagt | ttactatctt | 3180 |
| 227 |            |            |              |            | tagaaaagaa |            | 3240 |
| 228 |            |            |              | -          | ttgttaaata |            | 3300 |
| 229 |            |            |              |            | atgcttgggc |            | 3360 |
| 230 |            |            | -            |            | agcacaagcc |            | 3420 |
| 231 |            |            | <del>-</del> |            | ttggttcaca |            | 3480 |
| 232 | -          |            |              | -          | acataccatc | _          | 3540 |
| 233 |            | _          | _            | _          | cagatggaat |            | 3600 |
| 234 |            |            |              | _          | gccggataac |            | 3660 |
| 235 |            |            |              |            | ttcattccaa |            | 3720 |
| 236 |            |            |              |            | caggacattt |            | 3780 |
| 237 | _          |            |              |            | aaagaaatga |            | 3840 |
| 238 | -          |            | aggaagtagc   | caagtgtttt | tcatgaccct | caacagaaat | 3900 |
| 239 | tccatgatga | actggtaa   |              |            |            |            | 3918 |

241 <210> SEQ ID NO: 4 242 <211> LENGTH: 4059 243 <212> TYPE: DNA

244 <213> ORGANISM: Artificial Sequence

245 <220> FEATURE:

246 <223> OTHER INFORMATION: synthetic

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/645,456A

DATE: 11/27/2002 TIME: 14:44:30

Input Set : N:\Crf3\RULE60\09645456A.RAW
Output Set: N:\CRF4\11272002\1645456A.raw

## Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 2

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/645,456A

DATE: 11/27/2002 TIME: 14:44:30

Input Set : N:\Crf3\RULE60\09645456A.RAW
Output Set: N:\CRF4\11272002\I645456A.raw